DEPARTMENT OF THE INTERIOR
March 3, 1849

OCTOBER 1954
Vol. 4 • No. 4

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Our PUBLIC LANDS

BUREAU OF LAND MANAGEMENT

OCTOBER 1954 • Volume 4, Number 4

OUR PUBLIC LANDS . . .

500 million acres of land that belong to us and to our neighbors and to all the people of the United States . . . public lands that are rich in natural resources . . . timber, rangeland, water, minerals, and land for every use . . . "active acres" that must be carefully and wisely managed for the welfare of the Nation . . .

As a forum for the exchange of ideas and information on development, utilization, and conservation of the resources public lands, this periodical contains no copyrighted material. If pictures or material are reprinted, a credit line should be given Our Public Lands *and the Bureau of Land Management.*

Issued quarterly by

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Washington 25, D. C.

The printing of this publication has been approved by the Director of the Bureau of the Budget, January 26, 1954

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THE MINERALS PROGRAM FOR THE PUBLIC LANDS

by H. J. DUNCAN, *Chief*, Conservation Division, Geological Survey

The minerals-development program for the public lands is a cooperative undertaking between private industry, the Bureau of Land Management, and the Geological Survey and, as such, demonstrates that cooperation between industry and Government is not only possible but is a practical reality.

Basically, the program is divided into two phases: the leasing and general administration of the public lands and the actual mineral development pursuant to such leasing. The Bureau of Land Management is the official leasing agency for the public lands, as well as the office of record for all matters involving title and other interests. The Geological Survey is responsible for the supervision of actual mineral operations of the public lands, for the enforcement of the operating regulations, and for maintaining accurate accounts of royalties and other revenues.

In basic principles, the United States is no different than any other landowner. A mineral lease is issued to a private citizen or corporation, calling for a certain rental each year and a specified royalty to be paid in the event commercial mineral production is established on the leased area. The practical difference between the United States and the ordinary landowner is the size of the program. The vast acreage of the public domain and the great number of leases issued thereon make it essential to maintain complete and accurate records and to establish procedures which will allow leases to be issued quickly and with the minimum of red tape. Also, the public domain is a public trust, and the United States, as trustee for all the people, must see that mineral development is conducted according to the best engineering and conservation practices. It is for this purpose that the Geological Survey exercises its supervisory functions after the Bureau of Land Management has determined that a lease or permit may issue.

Properly to supervise the far-flung mineral operations on the public lands, the Conservation Division of the Geological Survey was formally created July 1, 1925. Its purpose, then as now, was twofold: to classify the public lands as to their mineral and waterpower potentialities and to supervise the actual mineral operations on the public lands. The Division responsibilities have increased to include the same or greater responsibilities on Indian and the so-called acquired lands (lands acquired by the United States for various purposes) and the outer Continental Shelf.

The division of duties of the Conservation Division creates a natural functional organization pattern, and thus four branches have been established, each responsible for a specific part of the overall supervisory program. The Mineral Classification Branch is responsible for the classification of the public domain as to its mineral potential. The Water and Power Branch classifies the public lands as to their potentiality for waterpower development. The Mining Branch supervises mining operations on leased Federal and Indian land; and the Oil and Gas Leasing Branch supervises oil and gas operations on all leased Federal and most Indian lands.

An indication of the size of the minerals program can be gained by looking at a few statistics. On December 31, 1953, there were outstanding 83,366 oil and gas leases on the public lands embracing 62,630,685 acres and 794 mining leases embracing 824,883 acres. Indian and acquired land leases totaled 11,217, so that the grand total of leases under the supervision of the Conservation Division was 96,377, embracing 68,504,486 acres. Royalty on the public land leases alone, for fiscal year 1953, was in excess of $35,000,000.

Of course, the closest cooperation between the Conservation Division of the Geological Survey and the Minerals Office of the Bureau of Land Management is necessary to conduct and supervise such a program. In fact, without such cooperation, the present program would be impossible. The closest possible liaison between the two bureaus is maintained, both in the various field offices and in Washington, Also, the cooperation of industry is essential to the success of the program, and close contact with industry officials and associations is maintained.

Recently, the Geological Survey and the Bureau of Land Management have embarked on a new

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Cow and calves grazing on meadow, Medford Forest District—Open pine-fir type in the background.

GRAZING ON THE O & C LANDS

by EUGENE K. PETERSON, ***District Forester*** **and MARK E. LAWRENCE,** ***Forester (Range)***

A little over 100 years ago many of our hardy forefathers journeyed West, lured on by tales from explorers and mountain men, about a rich and well-watered new land west of the Cascade Mountains in Oregon. For many there were dreams of gold, of free land, and lush pastures as they plodded westward in wagon trains over the long dusty stretches of the Oregon Trail, through Wyoming, past Fort Hall and Fort Boise.

The pioneers who came to the Willamette Valley settled primarily on the level spots where they found good farming land and abundant grass. The surrounding hills and mountains were densely clothed with seemingly endless stands of magnificent Douglas fir timber. Farther south in the upper watersheds of the Rogue and Klamath Rivers the climate was drier and the stands of Douglas fir became less dense. Here the fir forests merged with the more open park-like forests of ponderosa pine, sugar pine, and incense cedar. There was abundant free grass for livestock on the valley floor and among the oaks and madrone on the lower hills during the early spring and late fall months and on the higher timbered slopes during the summer. Here a livestock industry was soon established and many of the flourishing cattle ranches in the vicinity of Ashland, Medford, and Klamath Falls are still operated by descendants of the original settlers.

Today the same lands still furnish outside range for a substantial number of livestock, but the grazing is no longer free and unmanaged. Approximately 16,000 cattle and 3,200 sheep graze on 328,000 acres of Oregon and California revested railroad lands and 42,600 acres of intermingled public domain lands under grazing lease by the Bureau of Land Management. These Federal lands are being managed for all of their natural resource values—forests, watersheds, grazing, recreation and minerals. Grazing, under careful regulation, is permitted only where it is compatible with other primary resource values. Over 90 percent of the O & C lands are highly valuable for the production of forest products on a sustained yield basis.

Underneath the virgin forest canopy of th coastal zone and Umpqua and Willamette valle ere is insufficient light for grass to grow. After ring an excellent stand of grass can be established by broadcasting suitable species of seed in he ashes of the slash fires; but this grass is usually very aggressive and seriously inhibits the prompt establishment of a new crop of Douglas fir seedlings. The sheep and goats that are most commonly grazed in these areas frequently browse on the tender new trees. Consequently, in the typical Douglas fir areas very little livestock usage is permitted on the O & C lands.

However, in some of the more open pine and mixed species stands in the southern portion of the O & C area grass and trees can be good companion crops on the same managed acres. Although grazing is permitted by the Bureau of Land Management on a lease basis, each lease includes requirements necessary to obtain proper grazing management. The number and kind of livestock are specified as well as the dates of grazing usage. Lease fees are based on the carrying capacity of the leased area expressed in cow months. The cow month fee is adjusted each year in proportion to the changes in the average selling price of grass-fed beef cattle during the previous fall. For example, the cow month fee in 1951 was 60 cents; in 1952 it was 75 cents; in 1953 it was 67 cents and in 1954, 44 cents. Total revenue from grazing leases on the O & C lands in 1953 was $16,213. Seventy-five percent of this amount was distributed to the O & C counties in lieu of taxes d the remainder was deposited in the Federal asury.

Preference rights to lease the O & C lands are granted to owners of operating stock ranches adjacent to the lands for which they have applied. The term of the lease may be from 1 to 10 years. Long-term leases are issued only when the applicants' livestock operations have been stabilized over a period of years and are managed so that there will be no damage to the grazing, wildlife or other resource values on the leased lands. When long-term leases are granted the lease fees are adjusted every 3 years. Lease acreages vary from 10 acres to over 30,000 acres for some of the larger cattlemen's associations. Terms of the leases are determined by field foresters and a range management specialist and the leases are issued by the District Forester concerned.

The Bureau encourages its lessees to improve their ranges by the construction of reservoirs, the development of springs, construction of drift fences, reseeding suitable areas and the use of range riders for proper salting and control of the livestock. The Bureau for the past 6 years has in addition been investing approximately $8,000 per year in range developments which are carried out as cooperative projects with the lessees concerned.

In the vicinity of Medford the Bureau has pioneered the practice of sowing perennial bunch grasses at logging landings and skidroads after selective logging. Using hand cyclone seeders to broadcast alta fescue, orchard grass and Tualatin oat grass seed, uniformly good forage has been obtained, the soil stabilized and erosion controlled. In addition, the pine and fir and cedar seedlings have become established on the same area. The carrying capacity on these reseeded areas has been increased from an average of 1 cow month per 20 acres to 15 cow months per 20 acres at an average cost of $6 per acre. Another project now underway involves the eradication of unpalatable brush using airplanes and 245–T spray and the establishment in its place of a stand of perennial grasses.

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Cows and calves on the salt ground—The timber in the background is fir, sugar pine and incense cedar.

URANIUM WYOMING

by JOSEPH E. C. CONRACE, *Lands & Minerals Officer*, Cheyenne, Wyoming

It is said that history repeats itself. The legendary "Gold Rush" days of California, of the Yukon and the Klondike are rapidly being overshadowed in history by the currently feverish search for a new metal—one that is more precious and infinitely more vital than gold. It is URANIUM, the source of atomic energy—the means by which our modern scientists have succeeded in creating near-miracles and accomplishments undreamed of not too long ago. It has been said that a piece of radioactive URANIUM no more than 3 ounces in weight—if properly utilized—could run an automobile 1 full year; 11 pounds could operate an atomic locomotive 1 year; the recent development of the atomic battery has been looked upon as significant as the invention of the electric light bulb which has illuminated the world.

Now, the quest for URANIUM has spread to Wyoming areas successfully.

In a recent report by the Natural Resources Research Institute, University of Wyoming, it is stated that the earliest uranium discovery was in 1918 at Silver Cliff mine at Lusk, Wyo. Uranium mineralization of the carnotite type was recently discovered in the Lakota sandstone of Lower Cretaceous age in Crook County. In October 1951, uranium was discovered in the Wasatch formation, of early Eocene age, on the south side of Pumpkin Butte in the Powder River Basin (102 square miles of which have been since withdrawn from public disposition for investigation by the Atomic Energy Commission). A discovery of uranium resulted from airborne radioactive surveys in the Miller Hill area, Carbon County, in 1952.

Several other uranium occurrences have been reported in Wyoming—Carnotite in the Casper Mountain area, Natrona County, and on the dump of the South Copper Belt mine in Goshen County; uranium has been found in the Sundance formation (Upper Jurassic) southwest of the abandoned post office at Mayoworth, Johnson County; uranium is present in the Cherty manganiferous limestone of the Casper formation (Pennsylvanian) which was once overlain by the White River formation (Oligocene).

Late in the summer of 1953, uranium was discovered in the Gas Hill area of Fremont County The uranium is present in several forms, one of which is a strongly greenish-yellow fluorescent mineral tentatively identified as uranospinite. In October 1953, uranium-bearing sandstone, in which the principal uranium mineral is uranophane, was discovered about 7 miles west of Baggs and also near Saratoga, Carbon County; in the McComb area north of Shoshoni; and also in the vicinity of Crooks Gap in Fremont County.

These discoveries in Wyoming have resulted in a rush of locations made under the United States mining laws and notices thereof filed with the recorder of the county concerned. A report several months past indicates aproximately 1,4 such location notices covering lands in Fremo County alone. In 1 day, April 22, 1954, there were 111 notices of locations filed with the recorder of Natrona County. Ninety-five of these locations were staked out in a small sandstone rock area 6 miles north of Casper. Additional locations covered areas about 8 miles south of the Johnson County line.

Because of the intense interest in uranium and the eagerness of uranium prospectors to record their location notices, many of these recorded locations may prove to be valueless and invalid.

Mining locations are authorized under the provisions of the United States mining laws (30 U. S. C. 26 et seq.). The regulations thereunder are contained in Part 185, Title 43, Code of Federal Regulations. Unless a mining location is made in full accordance with the applicable mining laws and regulations, the location may be an utter nullity and therefore does not operate to vest in the mining locator the rights and privileges which would ordinarily flow from the location of a valid mining claim.

A mining location would be void ab initio if made at a time when the area covered by the location was included in a withdrawal which operated to preclude location, entry, and purchase under the mining laws. A withdrawal of this type would be a first form reclamation withdrawa Before such withdrawn lands can be made subj to location, entry, and purchase under the mining ws, they must be restored from the withdrawal returned to their original status as vacant, unwithdrawn, unappropriated public lands. Application for such restoration under the provisions of the act of April 23, 1932 (47 Stat. 136; 43 U. S. C. 154), may be filed with the manager of the particular Federal land office having jurisdiction over the lands involved.

Clearly, it is highly important to every prospector to make certain beforehand that, in the event he is successful in his efforts, he can legally claim the uranium deposits which he has discovered. Otherwise, as it has so often happened in the past, a prospector's time and effort will have been utterly lost and he will derive no benefit upon discovery of uranium deposits in lands which are not subject to such prospecting.

Therefore, the prospector must first check the ownership of the land he desires to prospect and make certain that such lands are in fact open to him for prospecting purposes. His initial step is to examine the status records of the Federal land office having jurisdiction over the area in which he is interested. These records are open to inspection by the public. They show the current status of every acre of the present public domain. Land office personnel are available to assist the prospector in ascertaining which of the public lands are vacant, unwithdrawn, and unappropriated. The availability of lands which show existing commitments under any of the mineral or public land laws should in all doubtful cases be resolved with the assistance of land office personnel.

Even if the examination of land office records shows the lands to be free of any conflicts, there is yet another search to be made before it can be certain that the lands are subject to location and entry under the mining laws for purposes of acquiring the right to mine and remove uranium deposits.

This additional step is to examine the records of the county recorder to see if any mining locations have been recorded by others with respect to the particular area in which the prospector is interested. Mining locations are not required to be recorded in the Federal land offices; the mining law requirement in this respect contemplates recordation only with the county recorder. The first formal notice of a mining location to the Federal land offices occurs upon the filing of an application for patent to the mining claim. Prior to such application, a valid mining claim may be held and worked under the mining law doctrine of pedis possessio—right of possession. The only recorded notice of the existence of a mining claim held by possessory right is in the office of the re-

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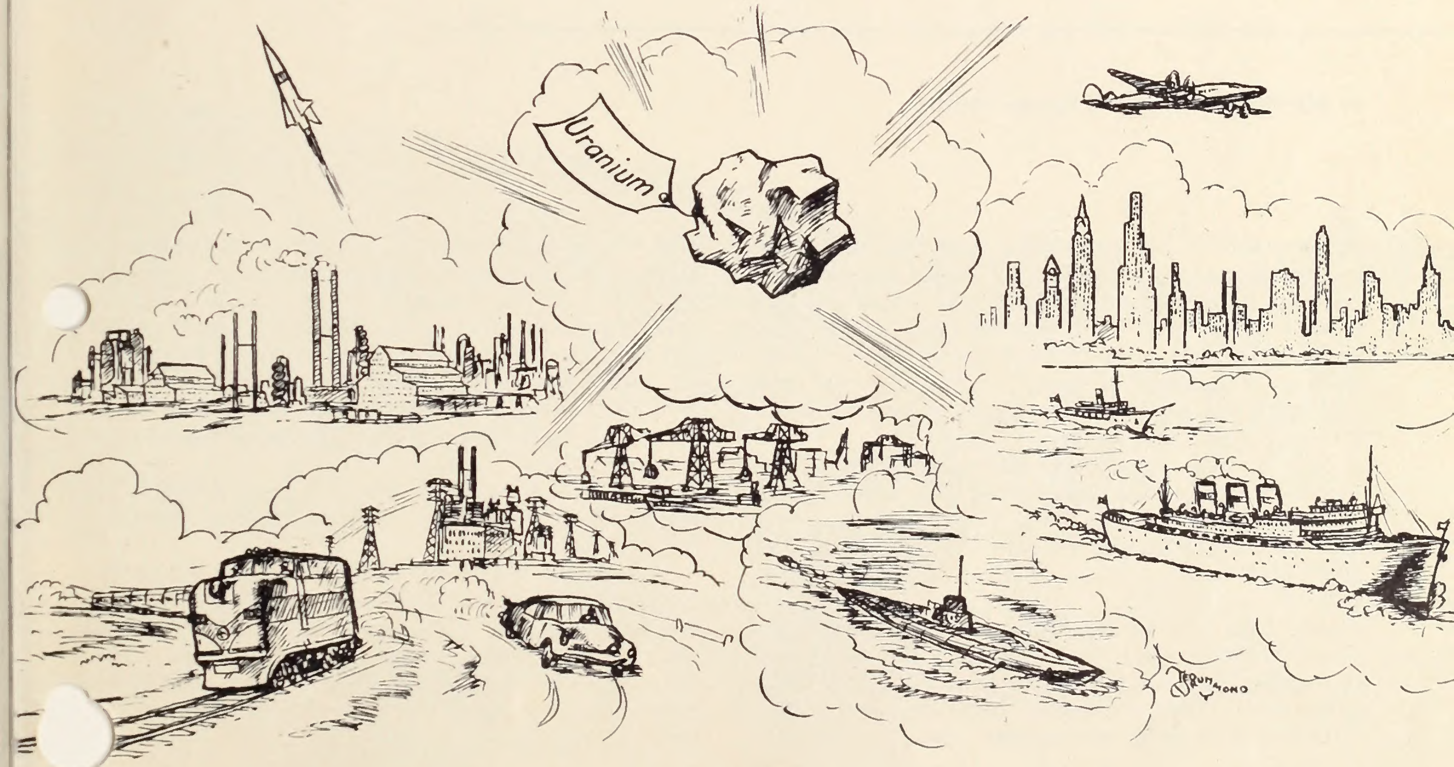

In nature's scheme there are few things that are more fitting than a boy planting a tree.

PARTNERS IN CONSERVATION

by JOHN CLARK HUNT, *Forester, Area 1*

Responsibility for protecting and managing the natural resources of the United States is constantly passing to a younger generation. Conservation is and must be a vital and moving force. The older men and women contribute their talent, ability, and experience to advance this never-ending national project then make room for fresh strength and enthusiasm.

Wisdom and experience takes the hands of the beginners and leads them for awhile. But young minds are quick to see the adventure of conservation and grasp the spirit and high ideals of the conservationists, even as they learn the practical job.

The field men of the Bureau of Land Management, knowing the need for leadership, were quick to answer the call for aid in the Boy Scout Program called, "Conservation Good Turn for 1954." The response from these busy men was natural and was given willingly. This was a chance to teach and demonstrate conservation on the range lands and in the forests. Many of the foresters and range managers are counselors, Scoutmasters, advisors, and organizers of the Scouts, so it was an additional opportunity to emphasize to their sons and the neighbor's boy the need for the proper use of all resources and how to create renewable resources.

From Alaska to Arizona and from Oregon to Washington, D. C., the BLM offered its services to the Scout troops.

In Oregon, where the BLM has approximately 150,000 acres of denuded forest land, 5,000 Douglas fir, ponderosa pine and sugar pine seedlings were planted by the Scouts. Plans were made for the Scout troops to adopt some of the waste areas and create new forests to heal the wounds left by forest fires.

Other Scout projects in the forest districts are e cleaning of small streams to increase and im-
rove fish habitat and gathering tree cones to provide seed for forest nurseries.

In the range districts of Oregon, Boy Scouts are participating in soil and water conservation work. They are making field trips to the cattle and sheep ranges with the range managers to actually learn the value of grazing plants and how to increase the amount of forage.

In Idaho the Scouts are learning by helping the BLM men control the poisonous range plant, halogeton, which kills livestock. They are learning how soil erosion is arrested, how to plant windbreaks, how to construct sand drift fences, how to harvest bitterbrush seed. They are also learning how to prevent and control range fires by attending BLM fire-training schools. The BLM men are teaching the Scouts the science of mapping, compass reading, as well as plant and tree identification.

Reports from Colorado, Utah, and Arizona describe how range managers there are working with their Scout troops. The Scouts are posting areas reserved for wildlife use, and working on a halogeton project in the Salt Creek area, where from 50 to 100 Scouts are participating. Scouts are helping push intensive fire-prevention programs. Another group assigned to a field project is learning to construct check dams to reduce and eventually control soil erosion in a problem area.

In Arizona, Scouts are helping with an experiment in reseeding a burned area in which several different species of grass are used. The BLM is furnishing the seed and the technical supervision. The Scouts are learning by doing the work.

Five range districts in Nevada are teaching conservation to their Boy Scout troops. To be sure the Scouts actually understood all phases of range conservation, the BLM had Scout members assume charge of the range offices for 1 day.

In Wyoming, conservation programs have been planned in which the BLM men will guide the Scout troops on their conservation projects. Water and grass is the key in resource management in Wyoming as it is in thousands of areas in the Western States. The Scouts are being taught how to manage and get the most from limited amounts of water.

The BLM men in Alaska, constantly aware of the urgent need for conservation education on our

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In Oregon there is a constant need for reforestation. The BLM has 150,000 acres of denuded or poorly stocked lands in the & C area.

active acres

ACTIVITY MAP

The activity map (back cover) shows some of the main activities of the Bureau of Land Management's Eastern States Office. Most of the original public domain in these States, except the original Thirteen States and Texas where there was no Federal public domain, has passed to private ownership through homesteading, sales, and other means. The remaining public lands in the large area are principally scattered isolated tracts which are being sold or used in exchange for privately or State-owned lands to improve the land ownership pattern and resource base of public land management projects. Some additions to the disposable acreage are made from time to time by the restoration of the lands to the public domain which are no longer needed for the purposes for which they were reserved.

In addition to the land disposal programs, other substantial activities of the Eastern State Office consist of cadastral surveys as a basis for describing and locating land ownership boundaries and the granting of permits and leases for mineral exploration. The latter activity has been increasing because of oil explorations on the Outer Continental Shelf and the responsibilities of the Bureau of Land Management for mineral leasing on lands acquired by other United States Government agencies. The principal minerals being leased are indicated on the activity map.

REORGANIZATION OF THE BUREAU OF LAND MANAGEMENT

The reorganization of the Bureau has progressed ahead of schedule and is nearing completion. The Washington office organization has been approved, the Eastern States unit has been established, State offices in the 11 Western States have been approved and are operating, and most of the work has been grouped and transferred from the Washington and area offices to the State offices at the immediate site of operations.

The legal staff was transferred to the Office of the Solicitor in accordance with the departmental reorganization combining the legal staffs of all the bureaus in that office.

Delegations of authority were approved prior to the establishment of the area and State offices and employees have been instructed on changes. Policies, standards, and procedures necessitate by the reorganization are being expedited.

HALOGETON PROGRAM APPRAISAL

The Bureau of Land Management is making an appraisal of its methods and accomplishments under its halogeton control program. The appraisal will be made of all halogeton range reseedings, except first year projects, all forage development projects, and the chemical control work on representative sites in each State. District range managers will obtain help from local county extension agents, key ranchers, and others in making the appraisal. After the appraisal has been made the State supervisor will have a State committee review the appraisal and make a report on its findings. The appraisal of halogeton range reseeding projects was accomplished in July and the appraisal of forage development projects and the chemical control work is underway this fall. A summary will be made by the Washington office of BLM. It is expected that the appraisal will reveal the good and unfavorable features of the program. This information will be very helpful to the Bureau in improving future programs.

The "Halogeton Glomeratus Control Act," approved July 14, 1952, is the basic authorizing legislation for the Bureau of Land Management control program. Under this act the Secretary of th

Department of the Interior, and subsequently, the reau was directed through its control program protect the livestock industry from losses caused by halogeton, to provide for the maintenance and development of valuable forage on range and pasture lands, and to prevent destruction or impairment of range and pasture lands and other lands by the growth, spread, and development of halogeton.

FIELD MANUAL OF COLORADO PLATEAU URANIUM MINERALS PUBLISHED

The Geological Survey is making an intensive study of the uranium ores of the Colorado Plateaus on behalf of the United States Atomic Energy Commission. New types of ore and a much greater variety of uranium minerals than was previously known have been found. The chief uranium production of the United States comes from the Colorado Plateau area—western Colorado, eastern Utah, northeastern Arizona, and northwestern New Mexico.

As part of the larger problem of the origin and extent of the uranium deposits, a report on the "Identification and occurrence of uranium and vanadium minerals from the Colorado Plateaus" has been written by A. D. Weeks and M. E. hompson. This report, published as Geological urvey Bulletin 1009–B, contains descriptions of the physical and optical properties and, in some instances, results of chemical and spectrographic analysis of 48 uranium and vanadium minerals. Also included is a list of locations of mines from which the minerals have been identified.

Copies of Geological Survey Bulletin 1009–B are available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 25 cents, and are on file in many libraries.

"PROSPECTING WITH A COUNTER"

The Atomic Energy Commission announced the publication of a new booklet, "Prospecting With a Counter," which has been placed on sale by the Superintendent of Documents, U. S. Government Printing Office, at 30 cents per copy.

"Prospecting With a Counter" describes radiation-detection instruments suitable for prospecting for uranium ores and summarizes information on their operation, use, maintenance, and application to prospecting, mining, and geologic problems. Emphasis is placed upon practical problems relating to the use of the instruments in the field. Their limitations as well as their useful charac- eristics are discussed.

PARTNERS IN CONSERVATION

(Continued from page 9)

northern frontier, are taking vital information to the Scout troops. They are explaining conservation practices adapted to Alaska and showing the Scouts how they can help conserve the resources. Plans have been completed for Scouts to help manage the tree nurseries at the BLM forest stations. They will also gather tree seed for reforestation in Iceland and Norway.

What is the attitude of the Boy Scouts of America and their officials toward learning, practicing, and teaching conservation?

Here are two excerpts taken from their literature:

I. Our Conservation Good-Turn Objectives

A. The overall objective of the Conservation Good Turn is twofold.

1. They help boys develop the right kind of attitudes regarding the importance of natural resources and their wise use. This objective is the most important.

2. To actually contribute to the rebuilding and wise use of America's natural resources by real down-to-earth work projects.

B. These objectives can be attained:

1. By carrying out projects such as window displays, exhibits at schools or unit meetings, demonstrations before adult or youth audiences, and similar activities which are aimed at "educating" boys, and through them adults.

2. By actual conservation work activities through which boys learn the need for and some of the techniques of conservation.

Outdoor Code—Boy Scouts of America: As an American, I will do my best to:

Be Clean in My Outdoor Manners

I will treat the outdoors as a heritage to be improved for our greater enjoyment. I will keep my trash and garbage out of America's waters, fields, woods, and roadways.

Be Careful With Fire

I will prevent wild fire. I will build my fire in a safe place, and be sure it is out before I leave.

Be Considerate in the Outdoors

I will treat public and private property with respect. I will remember that use of the outdoors is a privilege I can lose by abuse.

Be Conservation-Minded

I will learn how to practice good conservation of soil, waters, forests, minerals, grasslands, and wildlife; and I will urge others to do the same. I will use sportsmanlike methods in all my outdoor activities.

URANIUM WYOMING

(Continued from page 7)

corder of the county in which the mining claim is situated.

If no prior adverse interests or other conflicts are disclosed after examination of the records of the land office and of the county recorder, the public lands involved are properly subject to location and entry under the United States mining laws and the prospector is entitled to go upon the land to prospect for uranium deposits and to reap the benefit of discovery. A location under the mining laws is made by staking the corners of the claim, posting notice of location on the claim, and otherwise complying with State laws concerning recordation of the location in the county recorder's office, discovery work, etc. The mining laws of the State of Wyoming are available in mimeograph form from the Wyoming Natural Resource Board, State Capitol Building, Cheyenne, Wyo.

In discussing the surface damage problem with A. E. C. officials on the ground, it was indicated they would suggest to prospectors contacted to perform their assessment work (where applicable and required) by core drilling rather than pitting.

The following items are offered as general information of interest to uranium prospectors:

Uranium claims are staked on the public domain as lode claims, in compliance with the Federal and State statutes applying to the location of lode claims in the State in question. Recent legislation provides for the location and working of uranium on lands under Federal oil or gas leases.

At present it is necessary for Wyoming uranium producers to transport ores to Edgemont, S. Dak., which is the nearest A. E. C. buying station. The Commission does make a transportation allowance which may offset or help meet the cost of transporting ores to the buying station.

The Natural Resources Research Institute, 1220 Lewis Street, Laramie, makes Geiger counter tests for radioactivity on Wyoming samples without charge providing the general area from which the samples are obtained is reported. The institute will also determine whether radioactivity is due to uranium (fluorescent bead test) for $1 and will analyze samples for uranium reporting percentage present for $7.50.

The Atomic Energy Commission tests and analyzes samples for uranium if full descriptions as to location of the samples are given. A booklet *Prospecting for Uranium* (Revised 1951) by the U. S. Atomic Energy Commission and the U. S. Geological Survey can be purchased from the U. S. Government Printing Office, Washington, D. C., at a price of 55 cents.

Questions regarding the sale of uranium ore and other matters relative to the development of uranium prospects may be referred to the Douglas, Wyo., office of the Atomic Energy Commission or to the Grand Junction, Colorado office, Post Offic Box 270.

The U. S. Atomic Energy Commission po maps showing the locations of surface areas of high radioactivity on the 15th of the month at several places in Wyoming. These are at the following: Worland, Casper, Douglas, and Laramie. These maps also are posted in Denver and at many other places throughout the United States.

NOTE—IMPORTANT

In certain areas in Wyoming the uranium mineralization may be associated with arsenic or selenium, both of which are extremely poisonous. Accordingly, care should be exercised to avoid excessive contact with dust from rocks containing uranium minerals unless they are known to be nontoxic.

GRAZING ON THE O & C LANDS

(Continued from page 5)

Physical improvements on the O & C lands now include 3,200 acres of successful grass reseeding, 30 miles of drift fence, 10 spring developments, 20 reservoirs, and 4 varietal trial plots.

This cooperative range improvement work between the Bureau of Land Management and its lessees has helped in obtaining from the stockmen the actions necessary to keep grazing use in ha mony with forest production, and other vital lan uses. Actual reduction in livestock numbers have usually been unnecessary.

Grazing is firmly established as one of the important multiple uses on the O & C lands in the Rogue and Klamath basins. Like the timber and other renewable resources, it will be managed on a sustained yield basis and will continue to make an important and permanent contribution to the economy of local communities.

THE MINERALS PROGRAM

(Continued from page 3)

minerals venture—the leasing and development of the outer Continental Shelf. Following the enactment of the Outer Continental Shelf Lands Act (67 Stat. 462) on August 7, 1953, new regulations recognizing the peculiarities and difficulties of mineral development in the open waters of the high seas have been drafted and promulgated, and field offices for the leasing and supervision of such activities in the Gulf of Mexico have been established. According to all reliable reports, vast mineral wealth is hidden in the lands of the outer Continental Shelf, and its development will again be a cooperative undertaking between industry, the Bureau of Land Management, and the Geological Survey.

SMALL TRACTS IN ALASKA

by **GEORGE E. M. GUSTAFSON**, *Agricultural Economist (Land)*

The most popular method of land disposal in Alaska today is by means of the Small Tract Act of June 1, 1938. The first land leased under this act in the vicinity of Anchorage was classified for lease and disposal on May 17, 1949. Since that date there has been a total of 4,321 tracts, comprising 12,101 acres, opened for lease and sale as homesites, cabin sites, and business sites in the Territory, of which 1,283 tracts, comprising 3,681 acres, are located in the Anchorage area. In spite of the large number of tracts made available, there has been a steady and ever-increasing pressure by the public to open additional lands under this act. Only on very few occasions has the Bureau been able to open for drawing sufficient number of tracts to have a few left over from the 91-day veterans' preference period so the general public could have a chance to secure a tract, and these have generally been inaccessible at the time of opening.

Since the opening of the first small tracts in the Anchorage area, various questions have been raised, i. e.: (1) Are the lands actually proceeding to patent or are they merely standing vacant? (2) Are the lands being leased, and after expiration of the 2-year lease period reverting back to the Government to be released to someone else? (3) Are nonveterans circumventing the veterans' preference filing period by getting a veteran to file for the tract and then having it assigned to the nonveteran? (4) Are the tracts too large, thus putting the veteran lessee into the real estate business by furnishing an incentive for subdividing upon obtaining title? (5) Are the lands actually being used for the purpose for which they were originally classified and leased, or are the veterans merely taking them for speculation?

In order to determine the answers to these questions as well as provide a guide to the future planning in small tracts, a survey of some of the small tract units in the Anchorage area was made in the fall and winter of 1953. Nine small tract units were selected for the survey. These were the units which were originally opened to entry in 1949 and 1950. Within the 9 small tract units included in this survey, 336 tracts, or 38.9 percent were examined in detail.

In reply to the first question, i. e., are the lands actually proceeding to patent? An analysis of the data collected revealed that 239 out of 336 leases, or 71.2 percent, had proceeded to patent. The major portion of these were the original lessees, but the figure does include the tracts on on which the original lease had expired and the new lessee obtained patent. As for question No. (2) pertaining to expiration of the leases, 89, or 26.5 percent, of the original leaseholders permitted their leases to expire, but the major portion of these tracts were subsequently patented by the new lessee.

Ninety-four of the 336 lessees, or 27.9 percent, were granted renewal of their leases, in order to complete their improvements. This is considered to be a remarkably low percentage when one takes into consideration the short building season and the fact that all of these areas were relatively inaccessible at the time they were leased.

As for question No. (3), i. e., "Are veterans circumventing the veterans' preference filing, etc.," the statistics reveal that only 6 out of a total of 336 tracts were assigned. This figure emphatically refutes any assumption that nonveterans were using veterans to file for them and then having the tract assigned to the nonveteran. In the area of rapid population turnover such as the greater Anchorage area, one could expect a normal assignment of leases greater in number than the figures indicate.

In reply to question No. (4), i. e., "Are the tracts too large, thus putting the veteran lessee into the real estate business by furnishing an incentive for subdividing upon obtaining title?," the statistics show that only 23 out of the 239 patentees, or 9.6 percent, subdivided their small tracts into lots. Of the 23 that subdivided, 12 were located in the area adjacent to the military reservation, and occupied predominantly by military personnel stationed in Alaska for a definite tour of duty.

The fact that 71.2 percent of the leased tracts proceeded to patent is remarkable but doesn't reveal the actual use, if any, being made of the land. In order to arrive at an answer to question (5), i. e., "Are the lands actually being used, etc.," a

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RANGELAND RESEEDING DRAG FOR COVERING GRASS SEED TO GERMINATION DEPTHS

by **HAROLD W. MARTIN**, Idaho Grazing District Number 1

The "Drag" shown in the accompanying drawings provides exceptionally good soil covering for grass seed which has been broadcast to the soil surface from seed drills or fertilizer spreaders. It can be built to any standard of either 10-, 12-, 14-, or 16-foot seeding equipment.

A heavy duty dual-wheel truck tire chain is the basis from which the drag is built. Old chain sets no longer serviceable on trucks are entirely satisfactory.

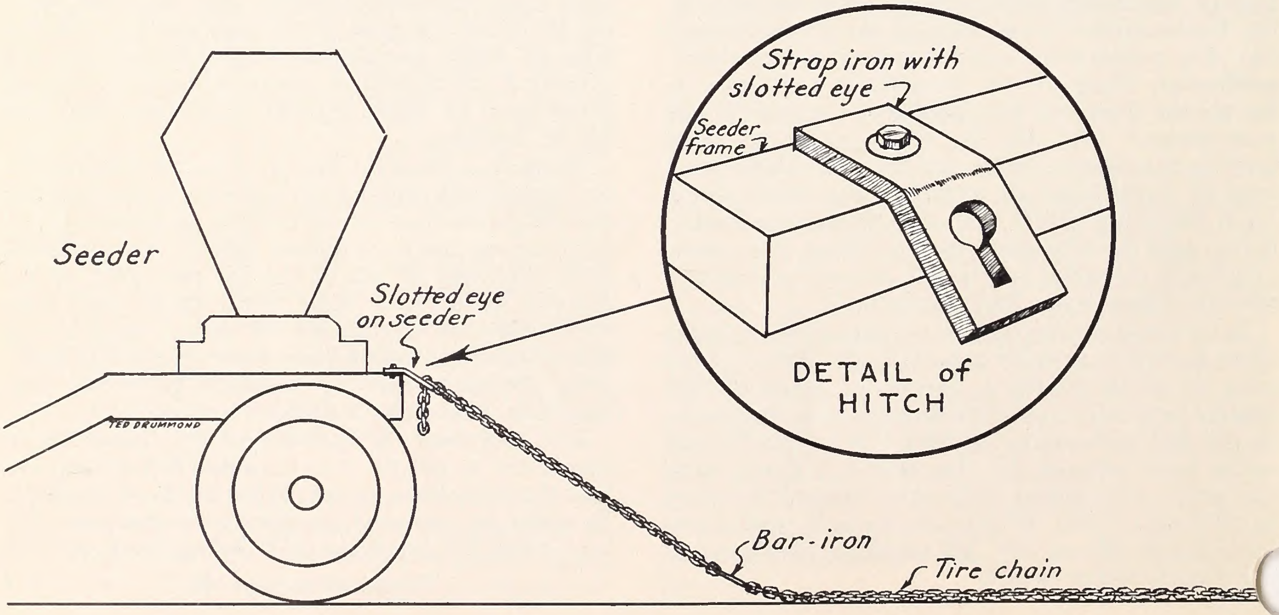
Each "Drag Unit" is built to cover one-half the width of the seeder; thus a bank of 3 seeders requires 6 units. The desired width of each unit is made by adding cross chains as may be required. The drag is attached to a length of flat bar-iron (dimensions ⅜ by 2½ inches by 4 feet 8 inches, for a 10-foot seeder). A similar length of 1½-inch pipe may be substituted for the bar-iron.

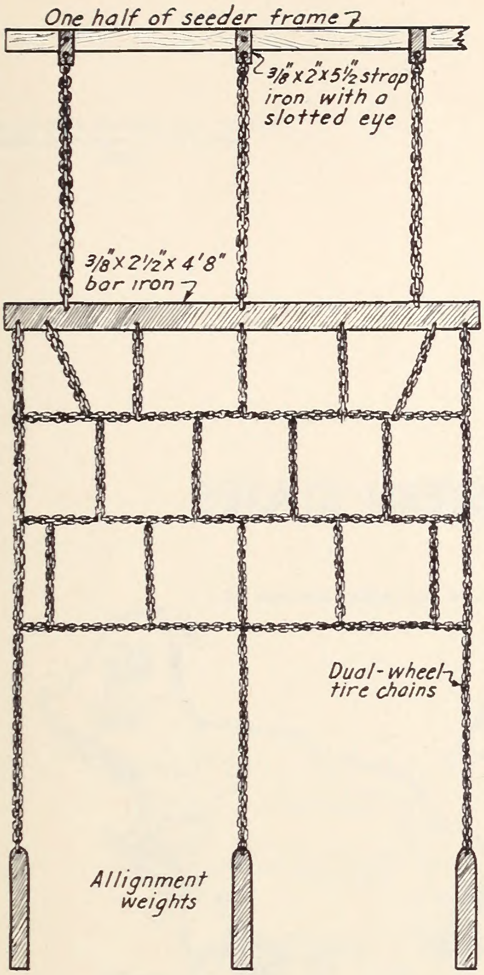
The drag is attached to the seeder frame with 3 pieces of chain each approximately 3 feet long. These chains are hung in a strap iron slotted eye bolted to the frame. The attaching chains can thus be adjusted to desirable lengths. The drag is held flat on the land surface by means of three alinement weights which are attached on a 3-foot length of chain to each lower corner and the center of the drag. The alinement weights (5 to 10 pounds each) are of scrap iron which will drag freely.

The drags for the center seeder in a bank three, are attached at the rear of the outfit in line with the center seeder.

The equipment described has been used on a 4,000-acre seeding project in Owyhee Grazing Dis-

Seeder with drag (Side view).





Drag for covering seed (Top view).

trict this year. The land is rocky. The plowed surface is strewn with plowed brush and boulders. These drags hug the ground closely and do not hang up on boulders or clog with brush. There has been no breakage and they require very little attention during operation of the seeding equipment.

These drags have given better seed covering than any other such equipment which has been used in the district. They have saved a lot of time in seeding operations because they require practically no attention or repair.

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check was made of a total of 320 tracts in the 9 small-tract units. It was encouraging to find that 138 families were making the small tracts their permanent year-round residences, or a total of 43.0 percent of the tracts checked. In addition to the 138 full-time residents, there were 16 families, or 5 percent, making their small tracts their part-time residences, and three additional tracts being used as business sites.

In addition to the above uses being made of the tracts, 42 leaseholders or patentees, or 13.1 percent, were using their tracts for recreational or weekend use. If we group all of the full-time and part-time users of small tracts into a grand total, it is encouraging to note that 199 families, or 62.2 percent, are making good use of their land. Included in the 199 tracts are 3 business sites. This is a substantial percentage when one realizes that the majority of the tracts are relatively isolated, due to the lack of good year-round roads. With the building of additional major access roads by the Alaska Road Commission during the summer of 1954, it is anticipated that many more leaseholders and patentees will make the small tracts their permanent homes. The story of the small-tract program in the Territory points out that as soon as an area becomes accessible by the construction of good roads, the use made of the tracts increases tremendously. It is now the policy of the Bureau in Area 4 to plan jointly with the Alaska Road Commission on the construction of access roads into a small-tract area before it is actually opened to filing.

Finally, if one were to wax sentimental in this land of the midnight sun, picturing a snug log cabin nestled in the spruce forest, this would be the exception rather than the rule. A survey of the type of construction used in the small tracts showed that 70 percent of the leaseholders stuck with the conventional frame type of construction, and 3.7 percent used either concrete block, quonset huts, or trailers placed on permanent foundations. Seventeen and two-tenths percent of the tracts examined had no improvements on them. Only 9.1 percent of the leaseholders resorted to log construction.

There is a need for additional small tracts. Every effort is being made by the Bureau of Land Management to supply the demand.

U. S. GOVERNMENT PRINTING OFFICE: 1954 O—313374

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. - Price 15 cents (single copy). Subscription price 60 cents a year, 15 cents additional for foreign mailing

SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON 25, D. C.

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ACTIVITY MAP OF EASTERN STATES

For comments on the map, please see page 10 .